

ABSTRACT OF THE DISCLOSURE

A very thin fan motor with an attached heat sink that has high heat radiation and air cooling effects in a small, flat, thin package, that has a simple and easily assembled overall structure as a fan motor, and that has superior cooling efficiency. A flat fan mounted in various kinds of electronic equipment that need to radiate heat, and particularly mounted directly on the CPU, characterized by having a fan motor mechanism that comprises a heat plate that supports a rotor fan that can rotate in a central position and that has a contact surface that matches the shape of the external surface of the item (such as a CPU) to be cooled, rotor magnets that are part of the rotor fan and are positioned around the periphery on the surface of the heat plate, and a stator coil substrate, by having multiple metal heat radiation fins with excellent thermal conductivity, which are thin heat-radiating fins, arranged in parallel at a fixed interval on the heat plate pointing outward from the rotor fan as cooling heat-radiation fins, and by combining the function of cooling heat sink with the heat radiation fins that conduct the heat absorbed from the heat plate and radiate it away by the action of the air moved by the rotor fan.